

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave.St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-013502**Date Inspected:** 27-Apr-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:****CWI Present:****Yes No****Inspected CWI report:** **Yes No N/A****Rod Oven in Use:** **Yes No N/A****Electrode to specification:** **Yes No N/A****Weld Procedures Followed:** **Yes No N/A****Qualified Welders:** **Yes No N/A****Verified Joint Fit-up:** **Yes No N/A****Approved Drawings:** **Yes No N/A****Approved WPS:** **Yes No N/A****Delayed / Cancelled:** **Yes No N/A****Bridge No:** 34-0006**Component:** Trial Assembly**Summary of Items Observed:**

On this day Caltrans OSM Quality Assurance (QA) Inspector Christopher D'souza was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhen Hua Port Machinery Company (ZPMC) at Chang Xing Island in Shanghai, China. QA Inspector observed and/or found the following:

This QA Inspector performed Magnetic Particle Testing (MT) of approximately 15% of the area previously tested by ZPMC MT personnel. This QA Inspector generated a TL-6028 MT report on this date. The weld designation numbers is as follows:

SEG037B – 007, 008

SEG035B – 46, 47

ABFJV Verification Witness Request ABFJV – CCO131-01

QA Inspector performed Final Visual Inspection following the guide lines of AWS-D1.5 on Deck Panel assemblies including Partial Penetration (PJP) welds joining U-ribs to deck plate. The deck panels examined are as follows:

MU2 – 001 – 001~020

VT of welds 001 thru 020 performed with Under Fill, Insufficient Fusion, Over Lap and Under Cut marked for

---

## WELDING INSPECTION REPORT

( Continued Page 2 of 2 )

---

repair.

QA Inspector performed initial Phased Array Ultrasonic Testing (PAUT) following the guide lines of UT procedure titled “Phased Array Ultrasonic Testing for the Detection and Sizing of Suspected Planar Discontinuities (Cracks) in PJP Welds, UT 04-0120F4 PJP Rib Weld” after conventional UT was performed on tack welded areas of the Partial Joint Penetration (PJP) welds joining u-ribs to deck plate. The deck panels examined are as follows:

MU1 - 001: 5 tack weld location found compliant and 0 tack weld locations found non-compliant.

Tack weld locations found non-compliant are marked on U-rib and deck plate for ZPMC’s reference for repair. See Caltrans U-rib to Deck Panel- Tack Weld Assessment sheets dated 27th April, 2010 for further information on PAUT inspections.

This QA Inspector was involved in PAUT (Phased Array Ultrasonic Testing) training for detection of cracked tacks in Deck Panels as per the following procedure “UT 04-0120F4 PJP Rib Weld Phased Array Ultrasonic Testing for the Detection and Sizing of Suspected Planar Discontinuities (Cracks) in PJP Welds”

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

### Summary of Conversations:

No relevant conversations.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

---

<b>Inspected By:</b>	Dsouza,Christopher	Quality Assurance Inspector
<b>Reviewed By:</b>	Carreon,Albert	QA Reviewer

---